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2-Dimensional Optical Fiber Array Made from Etched Sticks having Notches

ABSTRACT OF THE DISCLOSURE

5 A 2-dimensional optical fiber array having stacked sticks with
fibers disposed between the sticks. The sticks are made by
directional dry etching. The shape of the sticks is defined by
a lithographic mask. Each stick has notches for holding the
10 optical fibers. Since the sticks are defined by a lithographic
mask, the fibers are accurately located in the 2-D array. In a
alternative embodiment, the sticks are made by dry etching
holes in a wafer, and then cleaving the wafer into sticks. To
make the array. Fibers are disposed between the sticks and the
15 sticks are reassembled so that cleaved surfaces are rejoined.
Also, double-sided sticks can be made from a wafer having an
etch stop layer. Directional dry etching is performed from
both sides of the wafer.

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